

120644-1

REMARKS

Claims 1 - 44 are pending in the present application. Claims 1, 25, and 40 have been amended and Claims 45 - 50 have been added. The Examiner did not complete form PTO-326 with respect to the deposition of the claims. Only Claims 1 - 19 have been addressed in this Office Action. It is assumed that Claims 20 - 24 have been objected to as dependent from rejected independent claim, but would be allowable if rewritten in independent form and that Claims 25 - 44 have been found allowable as not rejected. Therefore, after the amendments, Claims 1 - 24 and 45 - 50 remain for additional consideration upon entry of this amendment. The claims have been amended to clarify that the radial tilt is taken over time, and is not merely the result after testing. Support for these amendments can at least be found in Figure 8 and in Paragraph [0032]. Support for new Claims 45 - 47 can at least be found in paragraph [0056]. No new matter has been introduced by these amendments. Reconsideration and allowance of the claims is respectfully requested in view of the above amendments and the following remarks.

Claim Rejections Under 35 U.S.C. §102

Claims 1 - 19 have been rejected under 35 U.S.C. §102(b) as allegedly being anticipated by or, in the alternative under 35 U.S.C. §103(a) as obvious over Hashimoto et al., U.S. Patent No. 5,053,288. The Examiner contends that Hashimoto et al. "disclose an optical recording medium comprising a polycarbonate substrate which is 1.2 mm thick, a recording layer, and a resin layer which has a composition different from that of the substrate and is formed from 10 to 500 μ m thick." Allegedly, the "tilt or warp of the medium is negligible...", and the swell ratio, which is not specified, is allegedly inherent since "the same materials are used in the same thicknesses." (Office Action 4/29/03, page 2)

The Examiner relies upon Example 1, Table 1, of Hashimoto et al. as support for the above position. Example 1 is a magneto-optical recording medium having a transparent substrate of polycarbonate, a dielectric layer of ZnS, a magneto-optical recording film of TbFeCo alloy, an organic protecting layer of a UV curable resin (bisphenol-A-epoxy acrylate, TMPTA and NPG-DA, and an inorganic protecting layer of AlN. (Col. 10, lines 6 - 37 and Table 1) The media

A

120644-1

was subjected to an accelerated deterioration test at 60°C and 90% RH. The tests showed that "after 1000 hours exposure to an atmosphere at 60°C and 90% RH, the mediums were not warped..." (Col. 13, lines 45 - 48). In other words, Hashimoto et al. determined that *after* a particular test treatment. They do not teach a radial deviation *over time*.

The present application teaches and claims a storage media. The media has a plastic substrate having a composition different from an optical layer composition, with a reflective layer between the optical layer and the substrate. The storage media has a radial deviation over time, of less than or equal to about 1.15 degrees at a radius of 55 mm. For example, as can be seen in Figure 8, as the media is subjected to various conditions, e.g., different amounts of relative humidity (RH), the curvature varies over time. The claimed media, however, varies less than or equal to about 1.15 degrees at a radius of 55 mm when exposed to humidity. In contrast, a different media (a matched media) is illustrated in Figure 3. Over time, with exposure to changes in RH, the curvature of this media, unlike the claimed media, varies greater than 1.25 degrees. Different compositions and/or different thicknesses result in different radial deviations over time.

To anticipate a claim under 35 U.S.C. §102, a single source must contain all of the elements of the claim. *Lewmar Marine Inc. v. Barient, Inc.*, 827 F.2d 744, 747, 3 U.S.P.Q.2d 1766, 1768 (Fed. Cir. 1987), *cert. denied*, 484 U.S. 1007 (1988). Additionally, in order to support an anticipation rejection based on inherency, an Examiner must provide factual and technical grounds establishing that the inherent feature necessarily flows from the teachings of the prior art. *Ex parte Levy*, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Int. 1990); *in re Oelrich*, 666 F.2d 578, 581, 212 U.S.P.Q. 323, 326 (C.C.P.A. 1981) (holding that inherency must flow as a necessary conclusion from the prior art, not simply a possible one). Applicants submit that the Examiner has not made a *prima facie* case of anticipation of present the claims.

As is admitted by the Examiner, Hashimoto et al. fail to teach various aspects of the present claims. e.g., swell ratio. Additionally, they fail to teach the various combinations of properties and compositions. Hashimoto et al. fail to teach or suggest a media having a radial deviation over time of less than or equal to about 1.15 degrees at a radius of 55 mm. As can

a

120644-1

readily be seen from Figures 3 and 8 of the present application, a radial deviation measurement *after* aging is not representative of the change in radial deviation during the various cycle. Consequently, the data provided in Table 1 of Hashimoto et al. is not relevant to the claimed limitation of radial deviation *over time*.

Applicants have claimed a mismatched media having a particular radial deviation over time. This media enables higher areal density storage in comparison to other media such as matched media. Hashimoto et al. fail to teach such a media.

The Examiner loosely claims that the compositions are the same and the thickness is the same, therefore the swell ratio is inherent. (Office Action 4/29/03, page 2) However, Hashimoto et al. teach various materials and various thicknesses. As is shown and discussed in the present application, the claimed radial deviation over time can be obtained by various combinations of compositions and/or matched or different thicknesses. This property does not necessarily flow from any combination of materials. Applicants have taught and claimed a specific media. This media is neither taught by Hashimoto et al. nor suggested. Furthermore, the claimed properties do not necessarily flow from the media of Hashimoto et al. The tilt discussed in Hashimoto et al. is different from the radial deviation claimed in the present application in that the present application is concerned with radial deviation over time while Hashimoto et al. are concerned with tilt at a point in time; namely after exposure to 60°C and 90% RH for 1000 hours. The physical properties that determine the tilt changes in Hashimoto et al. and the current application can be extremely different since we are looking at tilt over time and they are looking at tilt at a point in time.

The property of radial deviation over time is neither taught by Hashimoto et al., it does not necessarily flow from the media thereof, and there are no factual or technical grounds provided that support that radial deviation over time or swell ratio necessarily flow from the media of Hashimoto et al. Considering that Hashimoto et al. at least fail to teach the limitation of radial tilt over time, they fail to anticipate the present claims. Reconsideration and withdrawal of this rejection is requested.

120644-1

Claims 1 – 19 have been provisionally rejected under the judicially created doctrine of obviousness-type double patenting over Claims 19 – 35 of copending Application No. 09/943,767 to Hariharan et al. Allegedly, these claims are not patentably distinct because they allegedly claim “the same medium comprising a substrate, recording layer and polymer layer having the same properties (thickness, thickness ratio, tilt).” (Office Action 4/29/03, page 3) Applicants respectfully disagree with this rejection.

Hariharan et al. is directed to and claims a medium comprising a substrate layer comprising a polymer, a data layer on the substrate, and a thin film layer on the data layer wherein the thin film layer comprises a material with substantially the same physical properties as the polymer, and wherein the polymer at a predetermined maximum tilt range has a particular water strain.

As stated above, the media claimed in the present application comprises a plastic substrate having a composition different from an optical layer composition, with a reflective layer between the optical layer and the substrate. The storage media has a radial deviation over time of less than or equal to about 1.15 degrees at a radius of 55 mm. Unlike Hariharan et al., the present application specifically claims a radial deviation over time of less than or equal to about 1.15 degrees at a radius of 55 mm, and a mis-matched substrate and optical layer. These are non-obvious elements of the present application that are not claimed elements of the claims of Hariharan et al., and are non-obvious in view thereof. Reconsideration and withdrawal of this rejection is requested.

It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and allowance is requested.

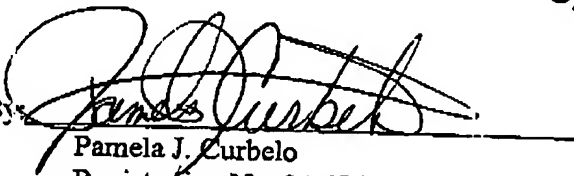
120644-1

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 07-0862.

Respectfully submitted,

CANTOR COLBURN LLP

By:



Pamela J. Curbelo
Registration No. 34,676
Customer No. 23413

FAX RECEIVED
JUL 16 2003
GROUP 1700

Date: July 15, 2003
Address: 55 Griffin Road South, Bloomfield, Connecticut 06002
Telephone: (860) 286-2929

